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Remarks:

Regarding the rejection of claims 1-8, and 13-24 under 35 USC 102(e) in view of US 6080387 to Zhou, et al. (hereinafter "Zhou"):

The applicant traverses the rejection of the claims in view of the reference to Zhou, particularly in view of the foregoing amendments to the claims. The Examiner's attention is specifically directed to claim 25, and the claim terms "... consisting of..." as is now present in the claim, and newly presented claim 26 which also includes the preamble limitation of "consisting of" and which depends from claim 25. The attention of the Examiner is also directed to amended claim 1 and newly presented claim 26 both of which now exclude the presence of a "film forming polymer". These amendments to the claims are believed to *prima facie* be patentably distinguishable over the prior art Zhou reference cited by the Examiner and be allowable thereover.

With regard to Zhou, the applicant point out that a reading of Zhou's quickly reveals to the reader that the invention of Zhou is based on a composition which includes the following constituents (see Zhou, col. 3):

The aerosol formulation comprises an antimicrobial composition that is mixed with a propellant. The composition has the following ingredients: 15

- (a) an anionic polymer or copolymer;
- (b) a quaternary ammonium compound, the components (a) and (b) combining to form an antimicrobially effective complex;
- (c) at least one water-soluble or dispersible organic solvent having a vapor pressure of at least 0.001 mm Hg at 25° C., said at least one organic solvent present in a solubilizing—or dispersion—effective amount;
- (d) an effective amount of a propellant; and 25
- (e) the remainder, water.

Additional adjuncts in small amounts such as buffers, fragrances, dyes and the like can be included to provide desirable attributes of such adjuncts.

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Therein is clearly indicated that amongst essential constituents are (a) and (b) which “.. the components combining to form an antimicrobially effective complex..” This is further supported by Zhou in his statement at column 4 wherein he indicates that:

The antimicrobial composition is preferably prepared by mixing effective amounts of the anionic component and the quaternary ammonium compound in water with agitation. A water miscible solvent and/or dispersing/emulsifying/wetting agent is preferably added before the two main

As well as at column 5 where he indicates that:

part of the invention. The most preferred range of 5:1 to 1:5 appears to result in an aesthetically pleasing film which has excellent residual antimicrobial efficacy, as well as disinfectancy. This also seems to imply that, in the cured film/residue, there may actually not be complete ion pairing between the quaternary ammonium compound and the anionic sites in the anionic polymer, since the quaternary ammonium active sites are available for residual microbial kill, although there is clearly an interaction between the two components. Again, the mechanism of the film/residue is not

And later at column 5 Zhou unequivocally “critically” identifies the role of the quaternary ammonium compound, or surfactant as being the sole agent responsible for providing a bacteriostatic/disinfectant benefit wherein he recites:

A critical second component of the invention is a quaternary ammonium compound, or surfactant. These types of surfactants are typically used in bathroom cleaners because they are generally considered “broad spectrum” antimicrobial compounds, having efficacy against both gram positive (e.g., *Staphylococcus* sp.) and gram negative (e.g., *Escherichia coli* or *Klebsiella* sp.) microorganisms. Thus, the quaternary ammonium surfactant, or compounds, are incorporated for bacteriostatic/disinfectant purposes and should be present in amounts effective for such purposes.

From the foregoing, it is made unequivocally clear that Zhou's compositions require this “(a)+(b) complex” in order to provide an antimicrobial benefit, and particularly in view of the foregoing passages of Zhou, that the quaternary ammonium compound provides the antimicrobial benefit. Thus it is clear to see that the both (a) and (b), (..but especially

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the quaternary ammonium compound..) are (i) essential constituents, and (ii) the quaternary ammonium compound provides the antimicrobial benefit. Thus the (a)+(b) complex define the operative mechanism for providing an antimicrobial benefit according to Zhou.

In contrast to the above, by even a simple review of the present applicant's specification, applicant's claimed compositions do not require either (a) or (b), nor the "(a)+(b) complex" in order to provide an antimicrobial benefit. Thus, *prima facie*, applicant's invention which provides effective antimicrobial efficacy absent the "(a)+(b) complex" is a clear indication that a different operative mechanism is at work, and thus is *prima facie* both unanticipated and nonobvious over the Zhou reference. (For example, applicant's Ex. 30 demonstrates a $6 \log_{10}$ reduction of Poliovirus absent both of Zhou's (a) and or (b), and none of applicant's examples illustrate Zhou's (b) polymers). The Examiner's assertions to the contrary are unsupported by the Zhou reference for the reasons outlined above. At best, the Examiner's selective reading of Zhou appears to be a "hindsight reconstruction" of the applicant's claimed invention which is however impermissible. The Examiner is reminded that in In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992), the Federal Circuit stated:

"It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." (quoting In re Fine, 837 F.2d at 1075, 5 USPQ2d at 1600)

See also W.L. Gore & Associates, Inc. v. Garlock, Inc. 220 USPQ 303 (CAFC, 1983); In re Mercier 185 USPQ 774, 778 (CCPA, 1975); In re Geiger 2 USPQ2d 1276 (CAFC, 1987)

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Again the Examiner's attention is directed to the subject matter of claims 1, 25 and 26 presented in this paper, each of which exclude one of Zhou's two essential constituents, here his "a) anionic polymer or prepolymer" which is one-half of Zhou's invention. These currently presented claims exclude "film-forming polymers" which patentably distinguish over Zhou's compositions, and without which, Zhou's compositions would not be effective. Further, as it is also clear that the applicant's invention and its success in the eradication of undesirable pathogens and fungi are based on a system of constituents which are distinguishable from Zhou's "(a)+(b)" combination, applicant's currently claimed compositions should also be considered nonobvious thereover.

Accordingly, in view of the foregoing remarks, reconsideration of the propriety of the rejection under 35 USC 102(e) is requested, and it is further requested that the rejection be withdrawn.

Should the Examiner in charge of this application believe that telephonic communication with the undersigned would meaningfully advance the prosecution of this application, they are invited to call the undersigned at their earliest convenience.

CONDITIONAL AUTHORIZATION FOR FEES

Should any further fee be required by the Commissioner in order to permit the timely entry of this paper, the Commissioner is authorized to charge any such fee to Deposit Account No. 14-1263.

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Respectfully Submitted;

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CERTIFICATION OF TELEFAX TRANSMISSION:

I hereby certify that this paper and all attachments thereto is being telefax transmitted to the US Patent and Trademark Office to telefax number: 571 273-8300 on the date shown below:

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